

KHAPRA BEETLE, *Trogoderma granarium*, Everts, INTERCEPTED AT VANCOUVER, B.C.

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On 26 January, 1963, numerous Khapra beetle larvae were found during a routine examination of the holds of the M.S. Bengalen, Java Pacific Line, at Vancouver. Since the ship had unloaded at Los Angeles, San Francisco, Portland and Seattle, the U.S. Department of Agriculture was notified.

In No. 1 lower hold were some dried, larval skins of *Carpophilus humeralis* (Fab.). There were Khapra beetle larvae in moderate numbers in the No. 2 lower tween deck. In No. 4 lower hold were isolated infestations in fair numbers. No. 6 lower hold contained the heaviest infestation. Here bags of coconut were piled solidly, 8 feet high across the after end. This is a shallow hold, and the sides of the shaft are oil tanks. After the coconut was unloaded the tops of the tanks were found to be warm, and this circumstance may have helped in obtaining a good kill under the solid piles of bags. There was a great amount of extensively riddled wheat residue under the wooden ceiling in this hold.

Since the Khapra beetle was found in scattered sections of the ship, it was decided to fumigate the entire

vessel as well as the cargo in holds 2 and 6. The rate was 10 lb. of methyl bromide per 1000 cu. ft. for 18 hr., hence 613,000 cu. ft. took 6,130 lb. gas. The fumigation was started at 9:30 p.m., 26 January, and the last hold was cleared at midnight, 27 January. The starting temperature was 34°F.; the opening temperature 40°F. A complete kill was achieved and the cargo was undamaged.

This vessel had been in Vancouver in January, 1962, when No. 6 hold was 'passed for loading.' It could not be 'cleared' because American wheat was loaded in the lower hold. It is possible that the Khapra beetle was present at that time.

The Bengalen trades from the Persian Gulf and India *via* Singapore, to the west coast of North America bringing such cargoes that infestations might be found at any time. It was with great difficulty that larvae were seen in the cargo discharged at Seattle, for Khapra beetle larvae hide so effectively that they are difficult to detect unless they are present in numbers. Cast skins are usually associated with and buried under debris, and the adults are not often seen.

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FURTHER RECORDS OF DELAYED EMERGENCE OF *Buprestis aurulenta* L. (COLEOPTERA: BUPRESTIDAE)

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Within recent years there has been an increasing number of records of delayed emergence of *Buprestis aurulenta* L. from woodwork. In 1930 (2) I stated my belief that larvae of this

beetle could develop from eggs laid in timber recently sawn from logs, without having to feed first on the cambium layer before entering sapwood and later heartwood. Dr. Gorton Linsley, University of California (1) questioned my view but I think

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